

## **REMARKS**

This paper is presented in response to the Office Action. By this paper claims 1, 15, 19, 23, 26-28 and 30-33 are amended. Claims 21, 22, and 34-59 have been withdrawn. Claims 1-20 and 23-33 remain pending.

Reconsideration of the application is respectfully requested in view of the aforementioned amendments and the following remarks. For the Examiner's convenience and reference, Applicant's remarks are presented in the order in which the corresponding issues were raised in the Office Action.

### **I. General Considerations**

Applicant notes that the remarks and amendments presented herein have been made merely to clarify the claimed embodiments from elements purported by the Examiner to be taught by the cited references. Such remarks, or a lack of remarks, and amendments are not intended to constitute, and should not be construed as, an acquiescence, on the part of the Applicant: as to the purported teachings or prior art status of the cited references; as to the characterization of the cited references advanced by the Examiner; or as to any other assertions, allegations or characterizations made by the Examiner at any time in this case. Applicant reserves the right to challenge the purported teaching and prior art status of the cited references at any appropriate time.

In addition, the remarks herein do not constitute, nor are they intended to be, an exhaustive enumeration of the distinctions between any cited references and the claimed invention. Rather, the distinctions identified and discussed herein are presented solely by way of example. Consistent with the foregoing, the discussion herein is not intended, and should not be construed, to prejudice or foreclose contemporaneous or future consideration, by the Applicant, of additional or alternative distinctions between the claims of the present application and any references cited by the Examiner, and/or the merits of additional or alternative arguments.

### **II. Objection to the Drawings**

The Examiner has objected to the drawings, alleging that certain claimed features are not shown in the drawings. Applicant notes that this objection is essentially the same objection to the drawings recited by the Examiner in the Office Action mailed 28 December 2005. Specifically, the Examiner asserts that "the supplemental channel circuitry includes an RF data sampler for sampling data from the first data stream to generate a set of sampled RF data and circuitry for including the sampled RF data in the second data stream" is not shown in the drawings. Applicant respectfully disagrees for the same reasons given in Applicant's paper filed 28 April 2006.

Specifically, Applicant refers the Examiner to the embodiment shown in Figure 16, which includes an RF Sampler 422 “for inserting a stream of samples of the RF data from the local subtree into the maintenance data stream.” Page 32, lines 10-12. Inasmuch as Figure 16, at least, provides clear support for the claimed feature, and inasmuch as the Examiner has not indicated that the prior response was inadequate regarding this issue, Applicant respectfully submits that the objection to the drawings should be withdrawn.

### **III. Rejection of Claims 1, 10, 13-15, 19, 20, 23, 24, 26, and 29-31 under 35 U.S.C. § 103**

Applicant respectfully notes at the outset that in order to establish a *prima facie* case of obviousness, it is the burden of the Examiner to demonstrate that three criteria are met: first, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings; second, there must be a reasonable expectation of success; and third, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *MPEP* § 2143.

The Examiner has rejected claims 1, 10, 13, 15, 19, 20, 23, 24, 26, 29, and 31 under 35 U.S.C. § 103(a) as being unpatentable over the “admitted prior art” (the “*APA*”) in view of U.S. Patent No. 6,373,611 to Farhan et al. (“*Farhan*”). The Examiner has rejected claims 14 and 30 under 35 U.S.C. § 103(a) as being unpatentable over the *APA* in view of *Farhan*, and further in view of U.S. Patent No. 4,862,392 to Steiner (“*Steiner*”). Applicant respectfully disagrees however and submits that for at least the reasons set forth below, the rejection of claims 1, 10, 13-15, 19, 20, 23, 24, 26, and 29-31 should be withdrawn. Of the rejected claims, claims 1, 15, 19, 23 and 31 are independent claims.

#### **a. claims 1, 10, 13 and 14**

In rejecting claim 1, the Examiner alleges that among other things, the *APA* discloses, “a sample clock generator (fig. 2, clock generator 156) having a first clock oscillator (fig. 2, 100 MHz clock signal) for generating a sample clock ... [and] an output clock generator (fig. 2, clock generator 156) having a second clock oscillator (fig. 2, 125 MHz clock signal) for generating an output clock.” *Emphasis added*. It would appear from the foregoing that the Examiner has characterized the *APA* as disclosing two different clock oscillators, one of which, the Examiner has suggested, generates a sample clock, and the other of which generates an output clock, according to the Examiner. Notwithstanding this assertion, it is not clear that the characterization advanced by the Examiner is consistent with the *APA*.

For example, Figure 2 of the *APA* would appear to indicate that the “sample clock” and “symbol clock” are generated by the same device, namely, “Synchronous Clock Generator 156.” As well, the specification (at page 6, lines 10-13) states, with respect to Figures 2 and 3, that:

Prior art return path link systems, such as the one shown in Figs. 2 and 3, have used a low noise oscillator at the transmitter for the A/D sample clock. The same oscillator is also used as a reference for a synthesizer that generates a coherent symbol clock for the communications link.

*Emphasis added.*

In contrast, and as noted above, claim 1 requires, among other things, “a sample clock generator having a first clock oscillator for generating a sample clock,” and “an output clock generator having a second clock oscillator for generating an output clock.” In view of the foregoing, Applicant submits that the Examiner has not established that the *APA*, *Farhan* or *Steiner* or any other reference teaches or suggests the aforementioned limitations in combination with the other limitations of claim 1.

With respect to the purported motivation for the allegedly obvious combination, the Examiner has alleged that it would have been obvious to modify the *APA* “in order to provide a digital pilot tone in the form of a number of bits representative of a particular level and frequency.” Office Action, p. 4. Notwithstanding this assertion, the Examiner has failed to establish why one of skill would be motivated to “provide a digital pilot tone in the form of a number of bits representative of a particular level and frequency.” In this regard, Applicant notes, without making any concession, that “... the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.” *MPEP §2143.01. Emphasis in original.* For at least this reason, Applicant submits that the Examiner has failed to establish the existence of a suggestion or motivation to make the purportedly obvious combination.

In view of the foregoing discussion, Applicant respectfully submits that the Examiner has failed to establish a *prima facie* case of obviousness with respect to claim 1, at least because the Examiner has not established that the references, when combined in the purportedly obvious fashion, teach or suggest all the limitations of claim 1 and because the Examiner has failed to establish the existence of a suggestion or motivation to make the purportedly obvious combination. Accordingly, Applicant respectfully submits that the rejection of claim 1, as well as the rejection of corresponding dependent claims 10, 13 and 14 should be withdrawn.

**b. claims 15, 19, 20, 23, 24, 26 and 29-31**

By this paper, Applicant has made various clarifying amendments to independent claims 15 and 19. As thus amended, claims 15 and 19 recite, among other things, a “return path transmitter that includes “... a first clock oscillator for generating a sample clock ... and ... an output clock generator having a second clock oscillator for generating an output clock.” In contrast, the Examiner has not established that the *APA*, *Farhan* or *Steiner* or any other reference or combination of references teaches or suggests the aforementioned limitations in combination with the other limitations of claims 15 and 19.

Concerning the purported motivation stated in connection with the rejection of claim 15, Applicant notes that as discussed above at III.a., the Examiner has failed to establish why one of skill would be motivated to “process multiple analog input signals and provide digital pilot tone in the form of a number of bits representative of a particular level and frequency.”

As to the motivation stated in connection with the rejection of claim 19, the Examiner has asserted that the motivation to make the purportedly obvious combination of the APA and Farhan is “... to send information from the subscribers to the head-end in a more reliable and less expensive manner.” *Emphasis added.* Applicant notes however that “more reliable” and “less expensive” are relative terms. For example, it is not at all apparent what reference point(s), if any, the Examiner is using as a basis to assert that an increase in reliability and a reduction in operational expense would necessarily be achieved as a result of the purportedly obvious combination. For at least this reason, Applicant submits that the Examiner has failed to establish the existence of a suggestion or motivation to make the purportedly obvious combination.

Applicant thus respectfully submits that the Examiner has not established a *prima facie* case of obviousness with respect to claims 15 and 19, at least because the Examiner has not established that the references, when combined in the purportedly obvious fashion, teach or suggest all the limitations of claims 15 and 19, and because the Examiner has failed to establish the existence of a suggestion or motivation to make the purportedly obvious combinations. Applicant thus respectfully submits that the rejection of claims 15 and 19 should be withdrawn.

With attention now to claims 23-24, 26 and 29-30, Applicant submits that as discussed at III.a. herein with respect to claim 1, the Examiner has failed to establish the existence of a motivation to combine the purported disclosure of *Farhan* with the *APA* to produce a device or method “... providing a second data stream ...” which is combined with a “first data stream” to “generate a combined data stream...” so as to facilitate achievement of the “digital pilot tone” that the Examiner has asserted would result from the combination of *Farhan* and the *APA*. For at least this reason, Applicant respectfully submits that the Examiner has failed to establish a *prima facie* case of obviousness with respect to claim 23. Moreover, the Examiner has not established that the aforementioned defect is remedied by any other cited reference and, accordingly, the rejection of corresponding dependent claims 24, 26 and 29-30 should likewise be withdrawn.

Directing attention finally to claim 31, that claim has been amended herein to recite in part “... generating an output clock having an associated output rate...” In contrast, the Examiner has not established that the *APA*, *Farhan* or *Steiner* or any other reference or combination of references teaches or suggests the aforementioned limitation in combination with the other limitations of claim 31.

As to the motivation stated in connection with the rejection of claim 31, the Examiner has asserted that the motivation to make the purportedly obvious combination of the *APA* and *Farhan* is to "... process multiple analog input signals and provide digital pilot tone in the form of a number of bits representative of a particular level and frequency." However, Applicant notes that as discussed above at III.a., the Examiner has failed to establish why one of skill would be motivated to "process multiple analog input signals and provide digital pilot tone in the form of a number of bits representative of a particular level and frequency."

Applicant thus respectfully submits that the Examiner has not established a *prima facie* case of obviousness with respect to claim 31, at least because the Examiner has not established that the references, when combined in the purportedly obvious fashion, teach or suggest all the limitations of claim 31, and because the Examiner has failed to establish the existence of a suggestion or motivation to make the purportedly obvious combination. Applicant thus respectfully submits that the rejection of claim 31 should be withdrawn.

#### **IV. Official Notice Regarding Claim 20**

Applicant notes that in the rejection of claim 20, the Examiner has taken Official Notice that "an Ethernet channel is well known in the art." Notwithstanding this assertion, Applicant respectfully submits that the Examiner has not met the high standard necessary to support the taking of Official Notice. In this regard, it is well established that "the notice of facts beyond the record which may be taken by the examiner must be 'capable of such instant and unquestionable demonstration as to defy dispute.'" *In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970), (citing *In re Knapp Monarch Co.*, 296 F.2d 230, 132 USPQ 6 (CCPA 1961)). It is also well established that the taking of Official Notice cannot be used to determine the state of the art: "The facts constituting the state of the art are normally subject to the possibility of rational disagreement among reasonable men and are not amenable to the taking of such notice." *In re Eynde*, 480 F.2d 1364, 1370, 178 USPQ 470, 474 (CCPA 1973), *emphasis added*.

Applicant submits that to simply assert, as the Examiner has, that "an Ethernet channel is well known in the art" (*emphasis added*) is not adequate to meet the established standards. For example, the assertion of the Examiner appears to be concerned with the state of the art as that state was believed by the Examiner to exist at the time of examination of the claims. However, the state of the art that is relevant in the examination of the claims is the state that existed at the time of the invention. Accordingly, Applicant submits that the Examiner has not established that the existence of an "Ethernet

channel” at the time of the invention would have been “of such instant and unquestionable demonstration as to defy dispute.”

In view of the foregoing, and pursuant to 37 C.F.R. 1.104(d)(2), Applicant hereby respectfully requests an Examiner affidavit that: (i) specifically identifies any and all reference(s), other than those that have been specifically cited by the Examiner, upon which the obviousness rejection of claim 20 is based; and (ii) provides complete details concerning the reasoning and analysis of the Examiner concerning those references as those references are purported to apply to the rejection of claim 20.

**V. Allowable Subject Matter**

The Examiner has indicated that claims 2-9, 11-12, 16-18, 25, 27, 28, 32, and 33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. In view of the discussion set forth herein however, Applicant respectfully declines to rewrite those claims in independent form at this time.

**VI. Incorrect Attorney Docket No.**


Applicant respectfully notes that the Office Action incorrectly references Attorney Docket No. “9775-0040-999.” Pursuant to the Change of Attorney Docket Number filed in this case on September 24, 2003, the correct docket number for this case is 15436.253.24.1. Applicant thus respectfully requests that all applicable USPTO records be updated accordingly, and Applicant further requests that all further communications from the USPTO reference docket number 15436.253.24.1.

**CONCLUSION**

In view of the remarks submitted herein, Applicant respectfully submits that each of the pending claims 1-20 and 23-33 is in condition for allowance. Therefore, reconsideration of the rejections is requested and allowance of those claims is respectfully solicited. In the event that the Examiner finds any remaining impediment to a prompt allowance of this application that could be clarified in a telephonic interview, the Examiner is respectfully requested to initiate the same with the undersigned attorney.

Dated this 2<sup>nd</sup> day of October 2006.

Respectfully submitted,



Peter F. Malen Jr.  
Attorney for Applicants  
Registration No. 45,576  
**Customer No. 022913**  
Telephone: (801) 533-9800

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